

**Evaluation of the USEPA Region 1 (New England)
Drinking Water Laboratory Certification Program**

by the

**Office of Ground Water and Drinking Water
Technical Support Center**

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U. S. ENVIRONMENTAL PROTECTION AGENCY

Cincinnati, Ohio 45268

Introduction

The “Manual for the Certification of Laboratories Analyzing Drinking Water” (MCLADW, Fifth Edition, 2005, EPA 815-R-05-004), requires the Office of Ground Water and Drinking Water (OGWDW) to “review the Regional drinking water certification programs and evaluate the resources and personnel available in each Region to carry out the certification program.” Paper reviews in the form of questionnaires are done annually with on-site reviews conducted triennially. The on-site assessment is conducted to assess the adherence of the United States Environmental Protection Agency (EPA) Regional Certification Authority to the requirements of the MCLADW, Chapters I – III. Michella Karapondo and Glynda Smith of the Technical Support Center (TSC) performed a Quality System Assessment (QSA) of the U.S. EPA Region 1 (New England) Drinking Water Laboratory Certification Program on August 30-31, 2011 at the U.S. EPA New England (EPA NE) office in North Chelmsford, MA. The QSA included a review of documents and discussions with Arthur Clark, Regional Laboratory Certification Program Manager (LCPM) for EPA NE, and Ann Jefferies, a regional Certification Officer (CO).

Quality and Timeliness of State Laboratory Audits

Principal State Laboratory (PSL) audits for Chemistry, Microbiology and Radiochemistry are to be conducted on a 3-year cycle as described in the MCLADW. Along with PSL audits, assessment of the State Laboratory Certification Program (LCP) should be performed, as outlined in Chapter III of the MCLADW. The last dates audits were performed of the PSLs and drinking water LCPs for the States in EPA NE are shown in Table 1. Laboratories acting as a PSL are identified in italics. There are no contracted laboratories that are part of a PSL for any State in EPA NE.

The EPA NE LCP is current on all PSL audits and certification program reviews. EPA NE is commended for maintaining a qualified staff with appropriate technical expertise to perform audits. The audit reports are very well written, and clearly state the findings and recommendations for each area audited. EPA NE is also commended for allowing their Laboratory Certification Program Manager (LCPM) to accompany the National Environmental Laboratory Accreditation Program (NELAP) assessors during assessment of PSLs accredited by New Hampshire Environmental Laboratory Accreditation Program (NH ELAP).

EPA NE issues an annual certification for each drinking water method/analyte to each of the PSLs, except for those accredited by NH ELAP. EPA NE does, however, examine NH ELAP's tracking of accreditations, and has found it to be satisfactory. Certificates from EPA NE have an expiration date for each certification, and the expiration dates and certification statuses can be changed to give the PSLs deadlines for corrective actions found in an on-site audit, or as a result of failing two consecutive Proficiency Test (PT) studies. PSLs cannot remain provisionally certified indefinitely. An example of the effectiveness of this process in issuing yearly certificates is the Massachusetts PSL. This laboratory had been provisionally certified for many parameters due to PT failures. By issuing incremental certification, EPA NE continuously encouraged the laboratory to address their deficiencies or lose their certification. The Massachusetts PSL is now fully certified for all chemistry and microbiology methods.

The OGWDW assessment team learned that EPA NE has found significant issues with the Maine Department of Health and Human Services Health & Environmental Testing Laboratory, the PSL for Maine. EPA NE has granted the PSL interim certification to address issues, such as the Quality Assurance program, found in the March 2011 audit, and has scheduled another on-site audit in September 2011 to ensure the laboratory has addressed the problems found in March.

Overall, the OGWDW assessment team noted that the PSLs in EPA NE have coverage for most of the regulated analytes. The Connecticut Department of Public Health (CT DPH) provides coverage for asbestos to all of the other PSLs in EPA NE. The New England laboratories have not fully identified laboratories to cover the Safe Drinking Water Act (SDWA) contaminants missing from their suite of certification in a formal manner such as documentation of agreements or memoranda of understanding. We encourage EPA NE to persuade the PSLs to provide EPA NE with a written plan to cover those missing contaminants, pursuant to 40 CFR 142.10.

The OGWDW assessment team also reviewed the EPA NE Standard Operating Procedure (SOP) titled "Standard Operating Procedure for Evaluating State Principal Laboratories Analyzing Drinking Water" and had no findings regarding this document. The SOP clearly defines the roles and responsibilities of the PSL audit team, the on-site assessment procedure, time frames for issuing certification status, and clear criteria for determining the certification status of the State and Tribal PSLs. EPA NE is commended for producing a clear, well-defined SOP for assessing the PSLs in the region.

Table 1 – Assessment Dates for New England States

State/Tribe	Date of Last Assessment of States' Laboratory Certification Program	Date of Last Chemistry Audit	Date of Last Microbiology Audit	Date of Last radiochemistry audit
Connecticut	CT Department of Public Health, Environmental Laboratory Certification Program (ELCP) - April 2011	CT Department of Public Health - April 2011	CT Department of Public Health - April 2011	CT Department of Public Health - April 2009
Massachusetts	Massachusetts Department of Environmental Protection - Sept. 2010	Massachusetts Department of Environmental Protection - Sept. 2010	Massachusetts Department of Environmental Protection - Sept. 2010	<i>Massachusetts DPH Environmental Radiation Laboratory – Withdrew request for certification in 2007. Tentative request for re-certification audit in 2012. MA DEP currently has an agreement with CT DPH to cover radiochemistry.</i>
Maine	Maine Department of Health and Human Services – March 2010	Maine Department of Health and Human Services – March 2011; follow up audit scheduled for September 2011	Maine Department of Health and Human Services – March 2011; follow up audit scheduled for September 2011	Maine Department of Health and Human Services – October 2010
New Hampshire	New Hampshire ELAP 2011	New Hampshire Department of Environmental Services* – November 2009 (NELAP)	New Hampshire Department of Environmental Services* – November 2009 (NELAP Accredited)	New Hampshire Department of Environmental Services* – November 2009 (NELAP)

State/Tribe	Date of Last Assessment of States' Laboratory Certification Program	Date of Last Chemistry Audit	Date of Last Microbiology Audit	Date of Last radiochemistry audit
		<i>Accredited)</i>		<i>Accredited)</i>
Rhode Island	Rhode Island Department of Health – March 2010	Rhode Island Department of Health – March 2010	Rhode Island Department of Health – March 2010	<i>Currently has an agreement with CT DPH to cover radiochemistry.</i>
Vermont	Vermont Department of Health – May 2009	Vermont Department of Health – October 2010 (<i>NELAP Accredited</i>)	Vermont Department of Health – October 2010 (<i>NELAP Accredited</i>)	Vermont Department of Health – November 2010
Aroostook Band of Micmacs (Tribe)		Micmac Environmental Laboratory - June 2009 – Provisional Certification	Micmac Environmental Laboratory - June 2009 – Provisional Certification	None

*The environmental laboratory in New Hampshire was transferred to the NH Dept. of Health & Human Services on July 1, 2011. (This was a reorganization and not a physical relocation.)

Reviews of State Certification Programs

EPA Regional offices typically review State LCPs at the same time the State PSL on-site evaluation is conducted, on a triennial basis. EPA NE follows this practice, with the exception of NH ELAP, which is a The NELAC Institute (TNI) Accreditation Body (AB). EPA NE is commended for participating in the TNI AB evaluation of NH ELAP. EPA NE is also commended for allowing a representative of EPA New England's Drinking Water program to accompany the LCPM on assessments of the certification programs. The OGWDW certification team finds this to be a very good practice to follow, so that the drinking water program office is aware of any certification issues that could impact State primacy.

On an annual basis, TSC sends a questionnaire to all of the Regional LCPMs regarding the status of the certification program in the States within their Region. Mr. Clark forwards this questionnaire to the States in EPA NE. This serves as an annual program review for the States in EPA NE.

EPA NE follows an SOP titled "Standard Operating Procedure for the Review of States' Laboratory Certification Programs." The OGWDW assessment team has reviewed the SOP and has no findings. The SOP clearly defines roles and responsibilities of the audit team. For each State LCP that conducts certification audits, EPA NE observes audits conducted by the State

COs, and completes an evaluation of the observation using the checklist found in the SOP. The completed checklist is shared with the State LCPM. Vermont requires all commercial laboratories to be NELAP accredited, and thus does not perform its own audits.

Regional Certification Program Files

The OGWDW assessment team reviewed files from each of the States and the tribal laboratory in EPA NE. The files were impeccably organized and very complete, and very easy to review. Files were divided into records of PSL and certification program assessments, correspondence from State LCPs, and records of PTs for the PSLs. Files for PSLs contained the annual certification letters issued by EPA NE. The OGWDW assessment team continues to find this an excellent practice, which we have suggested to other EPA Regions to adopt in certifying PSLs.

Communications with State Counterparts

A conference call with the EPA NE States is held on at least a triennial basis in conjunction with the TSC program audit of EPA NE. A teleconference was held on August 31, 2011 and was well attended by the States in EPA NE and other Laboratory Certification Team members of TSC. Mr. Clark and EPA NE are to be commended for fostering an atmosphere of collaboration and communication among the laboratory certification program personnel in the EPA NE States. It is evident that the State personnel respect Mr. Clark and keep him informed of all changes/issues that arise in their State laboratories and programs.

Resources

It is very evident that EPA NE is committed to supporting the Drinking Water LCP. We appreciate the support Mr. Clark receives in the form of personnel and travel resources. We believe this support encourages the maintenance of a strong LCP, both within the region and the State programs. We regret that Mr. Clark will be retiring at the end of 2011. However, he has shaped the EPA NE certification program in a manner that will enable his successor to easily carry on in a productive manner.

ACTION ITEMS:


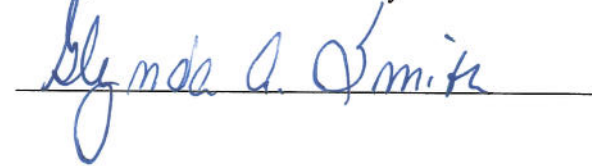
There are no mandatory corrective action items. However, there are several recommendations:

- Any COs who have not recently attended the laboratory certification course are encouraged to return to audit the course. There is a substantial amount of new information, as many regulations and other information pertaining to the Drinking Water program have changed in the last few years. Attendance at this course helps to strengthen the LCP.
- EPA NE should continue to monitor the number of COs each State has in order to determine whether there are adequate resources for the number of certified laboratories. The review team notes that New Hampshire currently has two COs responsible for the accreditation of approximately 80 laboratories under the NH ELAP program. Potential

shortages should be investigated to keep them from becoming an impediment to the maintenance/growth of the program.

- EPA NE should encourage PSLs that do not have coverage for all of the SDWA contaminants to document a plan in writing informing EPA NE where the PSL would send samples in case of an emergency.

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